

Applicant: Stephanus Gerardus Johannes Blackenborg
Application No: 10/593,552
Filed: June 4, 2007
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REMARKS

Claims 15-17 and 18-29 are pending in the application. Claims 26-29 have been withdrawn in response to a restriction requirement. Claim 15 has been amended. Entry of this amendment and reconsideration is respectfully requested.

Claim 15 has been amended to include, *inter alia*, the roughness of the surface of layers is expressed by Rz value which is measured in accordance with the DIN 4768 standard.

Attached herewith is a certified English translation of foreign priority document No.1025774, filed in The Netherlands on March 19, 2004, satisfying the requirements for claiming benefit of the earlier filing date.

Claim 15-17 are rejected under 35 U.S.C. §112 as allegedly being indefinite for lacking antecedent basis. Claim 15 has been amended accordingly. Withdrawal of the rejection is respectfully requested.

Claims 15, 19 and 21-24 stand rejected under 35 U.S.C. §103 as being unpatentable over U.S. Patent No. 5,246,815 to Ichimura et al. (hereinafter "Ichimura") in view of European Patent No. 0427382 to Stewart (hereinafter "Stewart") and further in view of U.S. Patent No. 4,705,608 to Keller (hereinafter "Keller"). Applicant traverses the rejection.

As currently amended, claim 15 is now specific to the method for producing a base material for screen printing with improved smoothness. One significant feature of the present invention is that the method enables obtaining of the base material with improved smoothness (Rz value), as well as uniform distance (d) and height (h). By use of the rollers, it is possible to achieve a uniform and controlled distance (d) from the dykes of the screen to the surface of the resist layer on the side of the protective film (sometimes referred to in the art as “Emulsion Over Mesh”) and a controlled and uniform height (h) of the resist layer between the dykes of the screen. Appropriate distances and uniformity of the distance are essential to achieve excellent print quality.

Ichimura teaches a process wherein the contact-bonding of the screen with the resist layer is done by squeezing with the squeegee. Ichimura fails to teach the roller of the present application. No suggestion to use a roller to improve the smoothness of the base material may be found either. Additionally, Ichimura fails to teach or suggest the surface of the resistant layer has a smoothness Rz of 15 micrometers or less on the side of the protective layer.

The use of the squeegee in Ichimura cannot ensure that the filling level or penetration depth in the screen openings is uniform. Furthermore, even where the cited references mention “a smooth back side of the sensitive layer” (Keller) or that “the stencil film is evenly applied to the screen fabric (Stewart), none of the methods according to cited documents ensure that the filling level and penetration depth in the screen openings is uniform in terms of both distance (d)

and height (h) which is a consequence of the currently claimed method. As mentioned in the specification on page 4, lines 28-29, non-uniform filling levels are unwanted as they lead to what are known as “dark spots”.

The current invention allows the preparation of a base material with improved smoothness and uniform and controlled distance (d) from the dykes of the screen to the surface of the resist layer on the side of the protective film (sometimes referred to in the art as “Emulsion Over Mesh”) and a controlled and uniform height (h) of the resist layer between the dykes of the screen. Appropriate smoothness are essential to achieve excellent print quality. This has been highlighted in the currently amended claim. These characterizing features are not disclosed, explicitly or implicitly, in any of the cited documents.

Additionally, the Examiner incorrectly states that Keller teaches a smooth back side of the photosensitive layer meets the limitations for a smoothness Rz of less than 15 micrometers. Rather, in Keller, the smooth back side of the photosensitive layer is not the surface of the photosensitive layer contacting the protective film, but the opposite surface at the side of the fabric web. This is contrary to the present invention.

Therefore, Ichimura, Stewart and Keller fail to teach or suggest the presently claimed invention. Withdrawal of the rejection is respectfully requested.

Claim 16 stands rejected under 35 U.S.C. §103 as being unpatentable over Ichimura in view of Stewart and further in view of Keller and U.S. Patent No. 4,668,329 to Shirataki et al. Applicant traverses the rejection.

The above-arguments equally apply herein as claim 16 depends from claim 15. Additionally, the Examiner acknowledges that Ichimura, Stewart, and Keller fail to teach or suggest the layer of composition (B) may be bonded to the screen without a drying step being performed.

The Examiner cites Shirataki as allegedly teaching the layer of composition (B) may be bonded to the screen without a drying step being performed. However, Shirataki fails to overcome the above-argued deficiencies as related to claim 15. Therefore, withdrawal of the rejection is respectfully requested.

Claim 17 stands rejected under 35 U.S.C. §103 as being unpatentable over Ichimura in view of Stewart and further in view of Keller and U.S. Patent No. 4,216,019 to Reed et al. (hereinafter "Reed"). Applicant traverses the rejection.

The above-arguments equally apply herein as claim 17 depends from claim 15. Additionally, the Examiner acknowledges that Ichimura, Stewart, and Keller fail to teach or suggest electroformed screen of the instant application.

The Examiner cites Reed as allegedly teaching electroformed screen of the instant application. However, Reed fails to overcome the above-argued deficiencies as related to claim 15. Therefore, withdrawal of the rejection is respectfully requested.

Claim 20 stands rejected under 35 U.S.C. §103 as being unpatentable over Ichimura in view of Stewart and further in view of Keller and U.S. Patent No. 4,302,528 to Sano et al. (hereinafter “Sano”). Applicant traverses the rejection.

The above-arguments equally apply herein as claim 20 depends from claim 15. Additionally, the Examiner acknowledges that Ichimura, Stewart, and Keller fail to teach or suggest that the roller makes contact with the screen in a tangential direction over a length less than the diameter of the opening of the screen.

The Examiner cites Sano as allegedly teaching that the roller makes contact with the screen as recited in claim 20. Applicant disagrees. Further, Sano fails to overcome the above-argued deficiencies as related to claim 15. Therefore, withdrawal of the rejection is respectfully requested.

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Claim 25 stands rejected under 35 U.S.C. §103 as being unpatentable over Ichimura in view of Stewart and further in view of Keller and U.S. Patent No. 4,937,172 to Gervay. Applicant traverses the rejection.

The above-arguments equally apply herein as claim 25 depends from claim 15. Additionally, the Examiner acknowledges that Ichimura, Stewart, and Keller fail to teach or suggest steps i) and ii) as recited in claim 25.

The Examiner cites Gervay as allegedly teaching the missing steps. However, Gervay fails to overcome the above-argued deficiencies as related to claim 15. Therefore, withdrawal of the rejection is respectfully requested.

It is therefore respectfully submitted that claim 15 and the claims that depend therefrom are patentable over the references of record. The application therefore is deemed to be in condition for allowance. Favorable action thereon is respectfully solicited.

The Commissioner is hereby authorized to charge payment of any additional fees associated with this communication, or credit any overpayment, to Deposit Account No. 08-2461. Such authorization includes authorization to charge fees for extensions of time, if any, under 37 C.F.R. § 1.17 and also should be treated as a constructive petition for an extension of time in this reply or any future reply pursuant to 37 C.F.R. § 1.136.

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Should the Examiner have any questions regarding this response, the undersigned would be pleased to address them by telephone.

Respectfully submitted,

/Anna-lisa L. Gallo/
Anna-lisa L. Gallo
Registration No.: 50,279
Attorney for Applicant

HOFFMANN & BARON, LLP
6900 Jericho Turnpike
Syosset, New York 11791
(973) 331-1700